

FOREWORD

Efficient and effective systems of mobility translate into stronger economies. Transportation investments translate into direct savings for consumers and businesses. Therefore, every penny spent improving the transportation infrastructure measurably benefits the population as a whole. In Michigan, our road system is the underpinning of the state's mobility and, therefore, at the heart of its economy.

Since 1999, the Michigan Department of Transportation has completed more than 93 percent of the road and bridge preservation projects promised in each edition of the Five Year Road & Bridge Program. This translates to improving more than 1,000 miles of state roadway, constructing more than 62 miles of passing relief lanes, and upgrading more than 1,100 bridges. In the past three years, MDOT has invested more than \$2.2 billion toward achieving our 10-year goal for road and bridge conditions that was announced in 1997.

That goal was to have 95 percent of freeways and 85 percent of non-freeways under MDOT's jurisdiction in good condition by 2007. We set a similar goal for bridges, with a targeted completion date of 2008. We are well on our way to meeting that goal, having accomplished a herculean effort during just the past five years through a mix of fixes that tackled the worst roads first.

In addition to reconstructing and rehabilitating pavements and bridges in poor condition, MDOT also has focused on protecting the state's investments. Our Capital Preventive Maintenance (CPM) program has helped keep roads and bridges in good condition. It has been shown that to return a roadway to good condition after it falls to poor condition is five times more expensive than simply maintaining the same pavement in good condition. That's why we've extended the life of nearly 3,500 roadway miles.

At the same time, MDOT has taken great strides during the past few years in reducing staff, streamlining operations, and reducing discretionary spending. We are now overseeing a road and bridge program three times the size of what we had in the early 1990s, with a staff that is half the size.

All of this is translating into real-world improvements for our customers – the motorists of Michigan. Because of strategies we've employed, the percentage of all roadway surfaces in good condition has improved from 64 percent in 1996 to 78 percent in 2001. This means that 88 percent of our customers are driving on good pavement. MDOT also began or continued several new road and expansion projects to help address traffic congestion, safety concerns, and economic development – all of which are necessary to modernize our state's aging freeway system.

Now that MDOT is confident the 2007 goal can be achieved, we are doing the responsible thing and moving on. To continually focus on a goal until it is accomplished is short-sighted, because it fails to ready the organization for the next hurdle. Therefore, MDOT will continue working on our 2007 goal, but will begin shifting our focus. We must expand our horizons to address the need for modernization of the state's freeway system. During the past two decades, the number of vehicle miles traveled in Michigan has grown 46.5 percent, while the miles of roadway have increased only 2.2 percent. MDOT will focus on major corridors to modernize the system and, where appropriate, increase capacity in an effort to improve travel and address safety.

MDOT continues to base its Five Year Road & Bridge Program on thoughtful investment strategies based on sound asset management principles and extensive customer feedback. New technology makes it possible to combine long-term program goals with current condition data. This allows us to generate our five-year plans, but also to achieve new investment efficiencies.

Here then, is a brief look at some of the strategies we follow in accomplishing the many tasks laid out before us each year:

Modernization of System

Modernization of our existing freeway system is our new goal and is the overriding element in all aspects of our improvement program. This effort ensures that our trunkline system is updated to current geometric standards including state-of-the-art materials.

Roadways

MDOT evaluates pavement condition based on such things as surface condition, ride quality, safety, friction, rutting, base condition, and drainage to reach a rating of "good" or "poor". The three-tier approach used at MDOT involves recon-

struction, rehabilitation, and preventive maintenance. This approach allows us to address the worst roadways through reconstruction, improve poor highways by rehabilitation, and extend the life of good pavement through preventive maintenance. We also incorporate asset management philosophy by developing programs that prioritize projects based on such factors as traffic volume, cost/benefit, ride quality, pavement condition, safety, user savings, maintenance savings, and condition of bridges in the corridor.

A renewed emphasis is being placed on ensuring the long-term quality of highway construction. Warranties for materials and workmanship are used routinely for many construction contracts and performance warranties are being evaluated on several major projects.

Bridges

MDOT bridge work also is based on an investment strategy integrating rehabilitation, replacement, Capital Scheduled Maintenance and Capital Preventive Maintenance. We now are placing a much higher emphasis on scheduled and preventive maintenance than ever before. Computer technology allows MDOT to predict trends in future bridge network conditions based on existing conditions, average deterioration rates, and investment strategies. By doing bridges in major corridors at the same time as our road work, we assure our customers that we will provide maximum service while minimizing the inconvenience that road work causes drivers.

Capacity Improvements

MDOT's strategy involves focusing on relieving urban congestion along major freeways and improving service levels on state highways. We are striving to balance reasonable access for residents, businesses and industries, improve safety, and increase mobility. Most capacity improvement projects fall into one of the following categories: freeway modernization, border crossings, congestion relief, choke points, grade separations, interchanges, passing relief, tourist and recreation traffic management, or safety.

Safety

MDOT's comprehensive Safety Program has implemented many efforts over the past several years to improve safety on our highways. This was accomplished through comprehensive highway traffic engineering technology and participating in all phases of the department's efforts to reduce traffic crashes and injuries, vehicle delay, pollution, and operating costs. Safety is our over-riding theme in all aspects of highway construction and design.

Border Crossings

Michigan's international border crossings are among the busiest and most important in the nation. The Ambassador Bridge in Detroit is the busiest commercial border crossing in North America, and the Blue Water Bridge in Port Huron is the third busiest. The Detroit-Windsor Tunnel carries the most passengers of any crossing on the U.S./Canada border. A feasibility study of a new international crossing between Southeast Michigan and Ontario is currently under way. To protect the livelihood of Michigan businesses and industries, and the mobility of Michigan residents, MDOT has prepared a comprehensive border crossing strategy. We have focused on reducing delays at the borders by improving the infrastructure and using the latest technology, without losing sight of the need for security of our nation.

Intelligent Transportation Systems

MDOT has long been at the forefront nationally in planning, developing, and deploying ITS technology to address transportation and safety issues. ITS includes the use of computers, telecommunications, and other advanced technology to reduce traffic congestion, improve safety, expedite travel, and enhance security.

Public Involvement/Outreach

MDOT's efforts in recent years to gather feedback from the public, provide detailed information to our customers, and release timely, up-to-date information to the media have been recognized by several state and national awards. To put it bluntly, we've changed the way we do business. We have decentralized our department, moving closer to the communities and customers we serve through Transportation Service Centers (TSCs). We've also streamlined processes to improve efficiency and increase our level of customer service.

Environmental Stewardship

MDOT works closely with state and federal environmental agencies to ensure that our projects are environmentally sound and require a minimum of disruption to existing ecosystems. In the area of wetland mitigation, any impacts our work might have on wetlands is offset with the creation of additional wetland areas. Our pre-mitigation program provides the basis for ongoing mitigation opportunities that are implemented as they become available rather than at the last minute. This not only saves money, but also brings potential wetland sites on-line earlier than ever before. MDOT policies typically result in an environmental improvement for an area when we are done. Almost \$5 million dollars has been used in the construction of 126 total acres of wetlands, including 63 wetland acres for use on future projects.

MDOT's proactive stance on environmentalism and being a good neighbor has led to initiatives not required by regulations, such as a Wild Grass Plantings Program, a Bird House Program (Bluebird and Kestrel), Heritage Route activities, Archaeological Deep Test Model grassroots research, Aesthetics Program, and even a professional video production on Michigan's historic bridges which was broadcast on PBS and is being used by K-12 schools as an instructional tool. Our context-sensitive roadway designs also consider wildlife habitat, thereby optimizing safe access/egress under our transportation corridors for Michigan's diverse aquatic and terrestrial wildlife.

Supporting Programs

MDOT recognizes that the road system isn't just about lanes for cars and trucks. That's why two important components in our strategy are non-motorized transportation and the Car Pool Parking Lot Program. We will continue to work with communities to identify appropriate locations where non-motorized paths will enhance pedestrian and bicycle mobility and safety. In order to encourage and facilitate ride-sharing, MDOT will promote the environmental benefits of such programs and provide safe and convenient parking lots for this activity.

Through it all, MDOT pledges not to lose sight of the economic and security issues now facing our nation. Our job is not just to build and maintain roads. It is to make wise transportation investment decisions on behalf of our "stockholders": the taxpayers of Michigan. President Dwight D. Eisenhower said it best in 1955 when speaking of the then-proposed Interstate Highway System: "Together, the united forces of our communication and transportation systems are dynamic elements in the very name we bear – United States. Without them, we would be a mere alliance of many separate parts."